



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,739	01/28/2005	Anthony Gerkis	213222.00099	8871
27160 7590 08/05/2008 PATENT ADMINISTRATOR KATTEN MUCHIN ROSENMAN LLP 2900 K Street NW Suite 200 WASHINGTON, DC 20007-5118				
EXAMINER				
KANGARLOO, RAMTIN				
ART UNIT		PAPER NUMBER		
2619				
MAIL DATE		DELIVERY MODE		
08/05/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/522,739

**Applicant(s)**

GERKIS, ANTHONY

**Examiner**

RAMTIN KANGARLOO

**Art Unit**

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 January 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-19 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 28 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1- 19 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only. Note the format of the claims in the patent(s) cited.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Amalfitano et al. (US Patent No. 6236647).

Regarding **claim 1**, Amalfitano discloses a method for transmitting data to a receiver (fig.1,20) over a data link in frames whose data-carrying capacity may vary from frame to frame (See col.2, lines 14-20), the method comprising transmitting the data (item 40 in fig.1 transmit the data) in implicitly sequentially numbered blocks transmitted in at least one series of blocks (See col.2, lines 20-25), each series having at least one block, the blocks having lengths determined so that the receiver can identify the blocks by sequence number using the sequence number of the first block of each series of blocks and can individually request retransmission of a lost or corrupted block (See col.2, lines 40-45).

5. Claims 1-3, 5 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Subhasis et al. (US Patent No. 6317430).

Regarding **claim 1**, Subhasis discloses a method for transmitting data to a receiver over a data link in frames (See col.6, lines 28-31 transmitting frames) whose data-carrying capacity may vary from frame to frame (See col.6, lines 32-45), the method comprising transmitting the data in implicitly sequentially numbered blocks transmitted in at least one series of blocks (See col.4, lines 55-58 and lines 63-65), each series having at least one block, the blocks having lengths determined (See col.2, lines 30-43, variable length sequence) so that the receiver can identify the blocks by sequence number

Art Unit: 2619

using the sequence number of the first block of each series of blocks (See col.4, lines 30-58) and can individually request retransmission of a lost or corrupted block (See col.6, lines 20- 27).

Regarding **claim 2**, Subbasis discloses the method of claim 1, wherein the sequentially numbered blocks of a series each have a fixed length (See col.1, lines 66-67 and col.2, lines 1-5), except for the last block of a series, or the only block of a series that has only one block, which may be shorter (See col.4 lines 54- 66 and col.5, lines 1-7 and col.1, lines 18-23).

Regarding **claim 3**, Subbasis discloses the method of claim 2, wherein the total number of sequence numbers available for numbering the blocks is pre-selected (See col.1, lines 53-56 pre-select a sequence number) so that the bandwidth-delay product of the data link under ideal conditions divided by the total number of sequence numbers available for numbering (See col.4, lines 8-15) the blocks is not greater than the lowest data-carrying capacity that is reasonably likely to be available in a frame to transmit a series of blocks over the data link during normal operation of the data link (See col.4, lines 25-29).

Regarding **claim 5**, Subbasis discloses the method of claim 2, wherein a series of blocks is encapsulated in a protocol unit together (See fig.3) with a header that

Art Unit: 2619

includes the sequence number of the first block of the series of blocks (See col.4, lines 45-50).

Regarding **claim 14**, Subhasis discloses the method of claim 3, wherein a series of blocks is encapsulated in a protocol unit together with a header that includes the sequence number of the first block of the series of blocks (See col.4, lines 45-50).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6, 7, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Subhasis et al. (US Patent No. 6317430) in view of Jurkevich et al. (US Patent No. 5164938).

Regarding **claim 6 and 13**, Subhasis discloses a method for transmitting data to a receiver over a data link (See col.6, lines 28-31 transmitting frames) in frames whose data-carrying capacity may vary from frame to frame (See col.6, lines 32-45), the method comprising:

When data-carrying capacity is made available in a frame, transmitting the data in one or more protocol units (See fig.1, protocol data units),

each discrete protocol unit having a data payload portion that is implicitly divided into sequentially numbered blocks each having a fixed length (See col.1, lines 66-67 and col.2, lines 1-5), except that the last block, or the only block if the protocol unit has only one block, is shorter (See col.4 lines 54- 66 and col.5, lines 1-7 and col.1, lines 18-23) and a header portion including the sequence number of the first block in the data payload portion, wherein the sequence numbers are chosen so that all blocks transmitted over the data link can be identified by sequence number by the receiver (See col.4, lines 30-58).

Subhasis does not explicitly disclose if the data payload portion is not an integer multiple in length of the fixed length. However Jurkevich teaches if the data payload portion is not an integer multiple in length of the fixed length (See col.21, lines 4-9)

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to mount payload size control taught by Jurkevich onto the packet processing system as show in Subhasis to transmitting data in order to control traffic.

Regarding **claim 7**, Subhasis and Jurkevich disclose all of the limitation as applied to claim 6. Further Subhasis discloses the total number of sequence numbers available for numbering the blocks is pre-selected (See col.1, lines 53-56 pre-select a sequence number) so that the bandwidth-delay product of the data link under ideal conditions divided by the total number of sequence numbers available for numbering (See col.4, lines 8-15) the blocks is not greater than the lowest data-carrying capacity that is reasonably likely to be available in a frame to transmit a protocol unit having

Art Unit: 2619

only one block over the data link during normal operation of the data link (See col.4, lines 25-29).

Regarding **claim 9**, Subhasis and Jurkevich disclose all of the limitation as applied to claim 6. Further Subhasis discloses if it is the receiver did not receive an uncorrupted copy of a previously transmitted protocol unit and there is sufficient data-carrying capacity in the next available frame to be transmitted, then retransmitting the previously transmitted protocol unit in the next available frame before transmitting data that has not been previously transmitted (See col.1, lines 33-35).

Regarding **claim 16**, Subhasis and Jurkevich disclose all of the limitation as applied to claim 7. Further Subhasis discloses the receiver did not receive an uncorrupted copy of a previously transmitted protocol unit and there is sufficient data-carrying capacity in the next available frame to be transmitted, then retransmitting the previously transmitted protocol unit in the next available frame before transmitting data that has not been previously transmitted (See col.1, lines 33-35).

8. Claims 10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Subhasis et al. (US Patent No. 6317430) in view of Jurkevich et al. (US Patent No. 5164938) as applied to claim 6 and 7 above and further in view of Amalfitano et al. (US Patent No. 623647).



Regarding **claim 10 and 18**, Subhasis and Jurkevich disclose all of the limitation as applied to claim 6 and 7. Subhasis and Jurkevich do not explicitly disclose forming a new protocol unit from consecutive blocks of the previously transmitted protocol unit and all consecutive previously transmitted protocol units that are to be retransmitted starting with the first block of the previously transmitted protocol unit and proceeding sequentially through the previously transmitted protocol units or units adding blocks to the newly formed protocol unit the data-carrying capacity of the next available frame is used or a block is encountered that is not the fixed length or is larger than the remaining available data-carrying capacity , transmitting the newly formed protocol unit in the next available frame over the data link and in the same manner forming and transmitting further new protocol units whenever data-carrying capacity in a frame is available until all blocks of the previously transmitted protocol unit or units have been successfully retransmitted, each newly formed protocol unit having a header including the sequence number of the first block in its data payload portion.

However Amalfitano teaches if it is determined that the receiver did not receive an uncorrupted copy of a previously transmitted protocol unit and there is sufficient data-carrying capacity in the next available frame to be transmitted, then:

forming a new protocol unit from consecutive blocks of the previously transmitted protocol unit and all consecutive previously transmitted protocol units that are to be retransmitted starting with the first block of the previously transmitted protocol unit and proceeding sequentially through the previously transmitted protocol units or units adding blocks to the newly formed protocol unit the data-carrying capacity of the

next available frame is used or a block is encountered that is not the fixed length or is larger than the remaining available data-carrying capacity , transmitting the newly formed protocol unit in the next available frame over the data link (See col.2, lines 64-67 and col.3, lines 1-2 and col.6, lines 66-67 and col.7, lines 1-30 and lines 55- 60 and col.8, lines 11-15), and

in the same manner forming and transmitting further new protocol units whenever data-carrying capacity in a frame is available until all blocks of the previously transmitted protocol unit or units have been successfully retransmitted, each newly formed protocol unit having a header including the sequence number of the first block in its data payload portion (See col.8, lines 34-35 and col.5 line 67 and col.6 lines 1-2)

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to mount retransmission system taught by Amalfitano onto the packet processing system as show in the system of Jurkevich and Subhasis in order control transmitting rate so that system become more repayable.

***Allowable Subject Matter***

9. Claims 4, 5, 8, 17, 19 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2619

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAMTIN KANGARLOO whose telephone number is (571)270-3452. The examiner can normally be reached on Mon to Fri 8 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chirag Shah can be reached on (571) 272- 3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/RAMTIN KANGARLOO/  
Examiner, Art Unit 2619  
July 29, 2008